

A1
(RFLP), Cycling Probe Reaction (CPR), Single-Strand Conformation Polymorphism (SSCP), heteroduplex analysis, hybridization mismatch using nucleases (e.g., cleavase), Southern, Northern, Westerns, South Westerns, ASOs, Molecular beacons, footprinting, and Fluorescent *In Situ* Hybridization (FISH). Some of these methods are briefly described below.

In the Claims

Please cancel claims 22, 23 and 28, and substitute the following claims for the pending claims having the same claim numbers:

A2
SUB B2
19. (Amended Once) A method of estimating the susceptibility of an individual to have offspring that develop a developmental disorder comprising:

- (a) collecting a biological sample from one or more participants; wherein a participant is either the individual or a blood relative of the individual; and wherein the biological sample contains nucleic acids and/or proteins of the participant;
 - (b) analyzing the nucleic acids and/or proteins from the biological sample; wherein said analyzing results in a partial or full genotype for the alleles of the genes involved in folate, pyridoxine, and/or cobalamin metabolism; and wherein said partial or full genotype forms a dataset of genetic explanatory variables for the participants;
 - (c) adding the datasets of genetic explanatory variables obtained from steps (a) and (b) to a genetic reference dataset therein forming a combined genetic dataset;
 - (d) formulating a model comprising the genetic explanatory variables obtained from the participants; and
 - e) analyzing the combined genetic dataset by binary logistic regression;
- wherein a predicted probability for the individual to have offspring that develop a developmental disorder is determined; wherein the genetic and environmental susceptibility of an individual to have offspring that develop a developmental disorder is estimated, and wherein the individual is a pregnant woman.
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A3
SUB B3
24. (Amended Once) A method of lowering the risk of a pregnant woman who has been determined by the method of Claim 21 to be susceptible to have offspring that develop a developmental disorder comprising administering methylfolate, cobalamin or pyridoxine to the pregnant woman, wherein said administering lowers the risk of the pregnant woman of giving birth to offspring with a developmental disorder.

A3 25. (Amended Once) A method of determining if any treatment is advisable for a pregnant woman who has been determined by the method of Claim 21 to be susceptible to having offspring that develop a developmental disorder comprising determining the concentration of a risk factor from a tissue sample or body fluid from the pregnant woman; wherein when the concentration of the risk factor is statistically above or below an accepted normal range, treatment is advisable.

A4
Sup
BH 29. (Amended Once) A method of treating an asymptomatic individual determined by the method of Claim 21 to be susceptible for developing a developmental disorder comprising administering methylfolate, cobalamin or pyridoxine.
